



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,288	07/19/2001	Peter Robert Foley	CM2506	2173

27752 7590 10/07/2003

THE PROCTER & GAMBLE COMPANY
INTELLECTUAL PROPERTY DIVISION
WINTON HILL TECHNICAL CENTER - BOX 161
6110 CENTER HILL AVENUE
CINCINNATI, OH 45224

EXAMINER

DEL COTTO, GREGORY R

ART UNIT	PAPER NUMBER
----------	--------------

1751

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/909,288

Applicant(s)

FOLEY ET AL.

Examiner

Gregory R. Del Cotto

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amend. filed 7/14/03.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29,36 and 37 is/are pending in the application.
- 4a) Of the above claim(s) 30-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-29,36 and 37 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-37 are pending. Claims 30-35 have been withdrawn from consideration as being drawn to a non-elected invention. Applicant's amendments and arguments filed 7/14/03 have been entered. Applicant's election with traverse of Group I in Paper No. 6 is acknowledged. The traversal is on the ground(s) that examination of all the claims would not be unduly burdensome. This is not found persuasive because claims 30 to 35 are drawn to a method of use, which is materially different from the elected invention, and would require a separate search due to its separate classification, thereby placing an undue burden on the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Objections/Rejections Withdrawn

The following objections/rejections as set forth in Paper #6 have been withdrawn:

The rejection of claims 14-19 and 22-27 under 35 U.S.C. 112, second paragraph, has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1751

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1751

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-18, 20-28, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Culshaw et al (US 5,202,050) in view of JP 8151597. A translation of JP 8151597 has been requested.

Culshaw et al teach safe and effective hard-surface cleaning compositions which contain a binary mixture of an organic solvent and a narrowly defined chelating agent. See Abstract. Suitable organic solvents include benzyl alcohol, 2-(2-butoxyethoxy)ethanol, 1-(2-n-butoxy-1-methylethoxy)propane-2-ol, etc., and can be used in amounts of from 1% to 20%. See column 5, lines 1-30. In addition to the essential chelating agent/solvent binary mixture, the compositions can contain additional ingredients such as surfactants and suitable surfactants include anionic, nonionic, cationic, amphoteric, and zwitterionic surfactants. See column 5, lines 45-69. Also, thickeners may be used in the compositions in amounts from 0.2% to 1.5% and include xanthan gums, smectite clays, etc. See column 6, lines 55-69. Highly desirable ingredients for use include hydrotropes such as monoethanolamine, diethanolamine, triethanolamine, etc. See column 6, lines 15-35. The pH of such compositions will generally be in the range of from 5 to 11. See column 7, lines 50-60.

With respect to the flow viscosity, shear thinning properties, and other physical parameters as recited by the instant claims, the Examiner asserts that the broad teachings of Culshaw et al would encompass compositions having the same the flow viscosity, shear thinning properties, and other physical parameters as recited by the instant claims because Culshaw et al suggest compositions containing the same components in the same proportions as recited by the instant claims.

Culshaw et al do not specifically teach a particle size of less than 100 nm for the smectite clay nor a cleaning composition composition having the specific physical parameters containing a soil swelling agent, a smectite clay with a particle size of less

Art Unit: 1751

than 100 nm, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

'597 teaches liquid detergent compositions containing a clay mineral having an average particle size of 10 to 5000 nm and anionic and nonionic surfactants. These minerals include montmorillonite, saponite, smectite and swelling mica. See Abstract.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a smectite clay having a particle size of less than 100 nm in the cleaning composition taught by Culshaw et al, with a reasonable expectation of success, because '597 teaches the use of smectite clay having a particle size of less than 100 nm in a similar detergent composition and Culshaw et al teaches the use of smectite clays in general.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a detergent composition having the specific physical parameters containing a soil swelling agent, a smectite clay having a particle size of less than 100 nm, and the other requisite components of the composition in the specific proportions as recited by the instant claims, with a reasonable expectation of success and similar results with respect to other disclosed components, because the broad teachings of Culshaw et al in combination with '597 suggest a detergent composition having the specific physical parameters containing a soil swelling agent, a smectite clay having a particle size of less than 100 nm, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

Art Unit: 1751

1. Claims 1-28 and 37 are rejected under 35 U.S.C. 103(a) as obvious over Feng (US 5,929,007) in view Culshaw et al (US 5,202,050) and JP 8151597.

Feng teaches alkaline aqueous hard surface cleaning compositions which exhibit good cleaning efficacy against hardened dried or baked on greasy soil deposits. The compositions comprise 0.01 to 0.85% by weight of amine oxide, 0 to 1.5% by weight of chelating agent, 0.01% to 2.5% by weight of caustic, 3% to 9% by weight of glycol ether solvent system comprising one glycol ether or glycol ether acetate solvent having a solubility in water of not more than 20% by weight water and a second glycol ether or glycol ether acetate having a solubility of approximately 100% by weight wherein the ratio of the former to the latter is from 0.5:1 to 1.5:1, 0 to 5% by weight of a water-soluble amine containing organic compound, 0 to 2.5% by weight of a soil anti-redeposition agent, and 0 to 2.5% of optional constituents. See Abstract. The caustic agent is present in the compositions to ensure that the overall pH of the compositions is at least 11.5 or greater. Suitable solvents which exhibit a solubility in water of approximately 100% by weight include diethylene glycol n-butyl ether. See column 4, lines 20-65. The compositions preferably include a soil antiredeposition agents which may be synthetic hectorite, colloidal silica, etc. See column 5, lines 50-69. Another desirable additive is a thickening agent such as those based on alginates and gums including xanthan gum. See column 6, lines 5-40.

Specifically, Feng teaches 2.0% amine oxide, 0.5% EDTA salt, 0.8% NaOH, 3.0% monoethanolamine, 3.0% glycol ether, low water soluble, 3.7 glycol ether, high water soluble, the balance water. See column 9, lines 35-50. The low water soluble

Art Unit: 1751

glycol ether is propylene glycol n-butyl, the high water soluble glycol ether is dipropylene glycol methyl ether, etc.

Feng does not specifically teach a smectite clay having a particle size of less than 100 nm nor a cleaning composition having the specific physical parameters containing a soil swelling agent, a smectite clay with a particle size of less than 100 nm, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

Culshaw et al and '597 are relied upon as set forth above.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a smectite clay having a particle size less than 100 nm in the cleaning composition taught by Feng, with a reasonable expectation of success, because Culshaw et al in combination with '597 teaches the use of smectite clays having a particle size of less than 100 nm and their equivalence to xanthan gum in a similar cleaning composition and further, Feng teaches the use of thickening agents such as xanthan gum.

With respect to the flow viscosity, shear thinning properties, and other physical parameters as recited by the instant claims, the Examiner asserts that the broad teachings of Feng in combination with Culshaw et al and '597 would encompass compositions having the same the flow viscosity, shear thinning properties, and other physical parameters as recited by the instant claims because Feng in combination with Culshaw et al and '597 suggest compositions containing the same components in the same proportions as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a detergent composition having the specific physical parameters containing a soil swelling agent, a smectite clay having a particle size of less than 100 nm, and the other requisite components of the composition in the specific proportions as recited by the instant claims, with a reasonable expectation of success and similar results with respect to other disclosed components, because the broad teachings of Feng in combination with Culshaw et al and '597 suggest a detergent composition having the specific physical parameters containing a soil swelling agent, a smectite clay having a particle size of less than 100 nm, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Culshaw et al (US 5,202,050) in view of JP 8151597 or Feng (US 5,929,007) in view Culshaw et al (US 5,202,050) and JP 8151597 as applied to the rejected claims above, and further in view of Ofosu-Asante (US 5,739,092).

Feng, Culshaw et al, and '597 are relied upon as set forth above. However, none of the references teach the use of a divalent cation in addition to the other requisite components of the composition as recited by instant claim 29.

Ofosu-Asante teaches liquid or gel dishwashing detergent compositions containing alkyl ethoxy carboxylate surfactant, calcium or magnesium ions, etc. See Abstract. The presence of calcium or magnesium ions improves the cleaning of greasy

Art Unit: 1751

soils for compositions, manifest mildness to the skin, and provide good storage stability.

See column 6, lines 40-55.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a magnesium or calcium ion(s) in the cleaning compositions taught by Feng or Culshaw et al, with a reasonable expectation of success, because Ofosu-Asante teaches the advantageous properties imparted to a similar hard surface cleaner when using magnesium and/or calcium ions.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Culshaw et al (US 5,202,050) in view of JP 8151597 or Feng (US 5,929,007) in view Culshaw et al (US 5,202,050) and JP 8151597 as applied to the rejected claims above, and further in view of WO 99/19441.

Culshaw et al, JP 8151597, and Feng are relied upon as set forth above. However, none of the references teach the use of a spray dispenser in combination with a cleaning composition as recited by instant claim 36.

'441 teaches a cleaning and disinfecting composition which provides effective cleaning, disinfecting, and shine performance, said composition comprising a surfactant system. The composition further comprises an antimicrobial compound and/or a peroxygen bleach for further enhanced disinfection performance. See Abstract. The liquid cleaning compositions may be packaged in a spray dispenser, preferably a trigger spray dispenser. See Abstract.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to package the cleaning compositions as taught by Culshaw et al

Art Unit: 1751

or Feng in a spray dispenser, with a reasonable expectation of success, because '441 teaches packaging a similar hard surface cleaner in a spray dispenser.

Response to Arguments

With respect to the rejection of the instant claims using Culshaw et al in view of JP '597 or using Feng in view of Culshaw et al in combination with JP 8151597, Applicant states that there is no motivation to formulate the claimed composition from the combined teachings of the references noted above. In response, note that, the Examiner maintains that there is clear motivation to formulate the claimed composition from the teachings of the references because '597 teaches that smectite clays having a particle size of less than 100 nm have a viscosity increasing effect (i.e., thickening) in a similar detergent composition and Culshaw et al teach the use of smectite clays as thickening agents in general. Note that, the Examiner maintains that it would have been obvious to one of ordinary skill in the art to formulate the claimed invention because the combination of references suggests the claimed composition. Note that, instant claim 9 **does not** require the presence of a smectite clay thickening agent. Additionally, with respect to the physical parameters of the composition as recited by instant claims 9 and several other claims, the Examiner asserts that the combination of references encompass compositions having the same physical parameters because the combination of references suggest compositions containing the same components in the same proportions as recited by the instant claims.

With respect to the double patenting rejections, the Examiner maintains that a complete Office Action on the merits requires all double patenting rejections whether provisional or non-provisional.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-29 and 37, are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 14-23 and 32-37 of copending Application No. 10/253113, claims 31 and 32 of 09/909233, claims 22 and 23 of 10/109344, claim 77 of 09/909403, and claim 80 of 09/910281. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 14-23 and 32-37 of copending Application No. 10/253113, claims 31 and 32 of 09/909233, claims 22 and 23 of 10/109344, claim 77 of 09/909403, and claim 80 of 09/910281 encompass the material limitations of the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Art Unit: 1751

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Remaining references cited but not relied upon are considered to be cumulative to or less pertinent than those relied upon or discussed above.

Applicant is reminded that any evidence to be presented in accordance with 37 CFR 1.131 or 1.132 should be submitted before final rejection in order to be considered timely.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory R. Del Cotto whose telephone number is (703) 308-2519. The examiner can normally be reached on Mon. thru Fri. from 8:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (703) 308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Application/Control Number: 09/909,288

Page 14

Art Unit: 1751

GRD

October 3, 2003

GREGORY DELCOTTO
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'G. Delcotto', written over the printed name.